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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,569

12/12/2005

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26021 7590 04/02/2008

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EXAMINER

LAM, HUNG Q

ART UNIT

PAPER NUMBER

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MAIL DATE

DELIVERY MODE

04/02/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,569	<b>Applicant(s)</b> ITO ET AL.	
	<b>Examiner</b> HUNG LAM	<b>Art Unit</b> 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 February 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 4-9 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 4-9 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/10/2007 and 12/06/2007</u> .                               | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Status of the Application***

According to present amendment, the entire application is not in condition for allowance.

Presently, claims 4-9 and 13 are pending, and claims 1-3, 10-12 and 14 are canceled.

### ***Information Disclosure Statement***

The information disclosure statement (IDS) submitted on October 10, 2007 and December 06, 2007 was filled in compliance with the provisions of 37 CFR 1.97. The examiner has considered the information disclosure statement.

### ***Response to Amendment***

1. Applicant's arguments filed on May 23, 2007 have been fully considered but they are not persuasive as the following reasons:

Regarding to the arguments of claims 4-8, the Applicant alleges that **Chisako's** outer surface of thicker portion 13 of sleeve 15 is attached to a holder, in contrast to an outer surface of the thicker portion (4a of figure 3 of the present application), that does not connect with the holder (i.e. (5) in figure 3 of the present application). However, the Examiner uses the broadest possible interpretation to interpret the "outer surface" limitation, in which the outer surface may comprise circumference/periphery surface and side/cross surface. Therefore, it appears to the Examiner that the thicker portion (4a) in figure 3 of the present still contact/connect/attach to the holder 5. Further, **Chisako's** disclose in figure 1 that the integrated thicker portion 13 of sleeve 15, has a periphery/circumference surface attached to the precision sleeve 11, while its side/cross

surface ended at the same end surface with sleeve 15, therefore, the periphery/circumference surface of the thicker portion 13 would not connect to the holder, and only its side/cross surface contact to the holder.

2. Further, Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

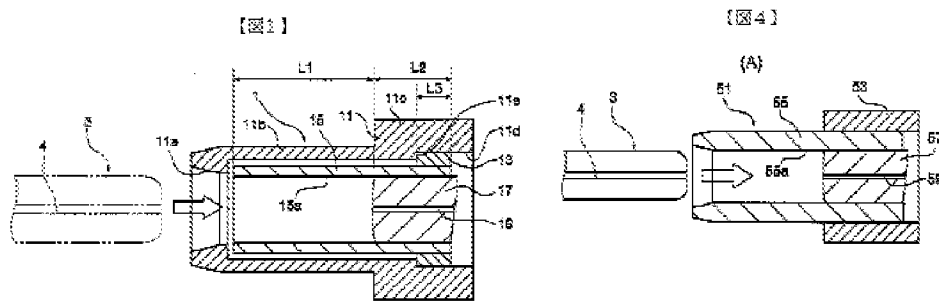
The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 4-7** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishida Chisako** (JP. Pub. 10-332988) in view of **Uenoyama et al.** (JP. Pub. 2003-139994).

**Regarding claims 4 and 5, Ishida Chisako** discloses an optical receptacle device comprising the following:

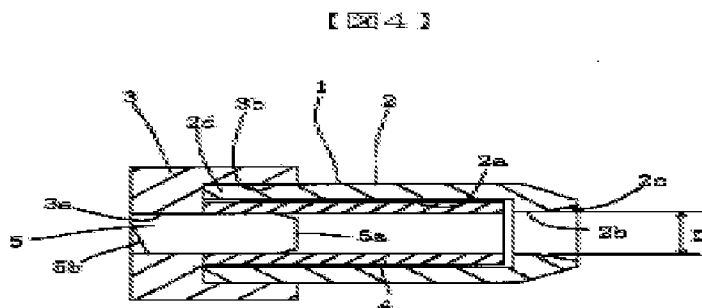
- a fiber stub having ferrule (i.e. 17 or 57) and optical fiber (i.e. 19 or 59) ([0002], Fig. 1 and Fig. 4).
- a holder 53 holds to fix the rear end of the fiber stub ([0002], Fig. 4).
- A sleeve (i.e. 15 or 55) into which the fiber stub is inserted, having a thicker portion 13 (i.e. gripping/grasping ring 13) directly holding the fiber stub, and wherein the length of thicker portion 13 is shorter than an insertion length of the fiber stub (“abstract”, [0007]-[0008], Fig. 1).
- the thicker portion 13 may has an end surface (i.e. outer surface) not connecting/attaching (i.e. by definition of dictionary) to the holder or still separable from the holder (Fig. 1).



Reproduced from JP. Pub. 10-332988.

However, **Ishida Chisako** does not explicitly disclose the holder directly fixing the fiber stub.

**Uenoyama et al.** teach an optical receptacle comprising a holder 3 and a fiber stub 5 (single-core cylindrical optical ferrule 5), in which the fiber stub 5 is directly fixed to the holder 3 (“Abstract”, and Fig. 4).



Reproduced from (JP. Pub. 2003-139994).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of **Uenoyama et al.** to modify the optical receptacle holder of **Ishida Chisako** in order to fix the rear end of the fiber stub directly to the holder. The motivation for doing so is because of this arrangement realized a “...free of difficulty assembly”

since “...the optical holder grasps the optical ferrule of a single alignment, and the sleeve which performs precision positioning of an optical ferrule...” (Uenoyama et al. “Abstract”, [0001]).

**Regarding claims 6-7**, in according to the discussion in the rejection of claim 4, **Ishida Chisako** discloses the claimed invention, **except** for the thicker portion being 1.5 to 2.5 times as thick as the other portion.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the thicker portion be 1.5 to 2.5 times as thick as the other portion. The motivation for doing so is in order to protect elastic sleeve 15 from free of deformation [0007] and regulating elastic telescopic motion [0009], since it helps to reduce a transmission loss in an optical signal and to miniaturize it. Further more, it has been held that absent a showing of criticality to the invention, where the general conditions of a claims are disclose in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

**Claim 8** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ishida Chisako** in the view of **Kato et al.** (US. Pub. 2004/0076384).

**Regarding claim 8**, in according to the discussion in the rejection of claim 4, **Ishida Chisako** discloses all claimed invention, **except** for the chamfer of a corner around a front end of the fiber stub is 0.1mm or below.

**Kato et al.** teach that the corner around the ferrule 32 front end of the fiber stub is chamfered ([0047]) in ease to external connector, but the width of the chamfer.

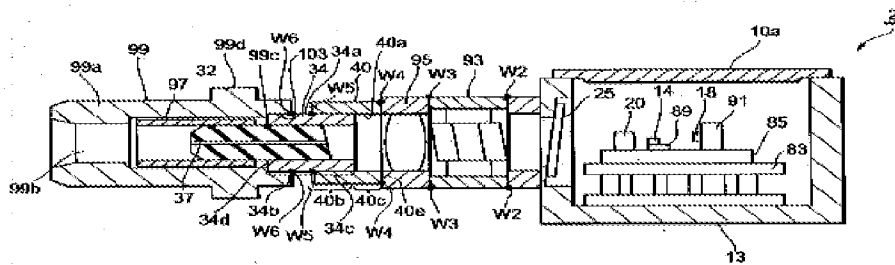
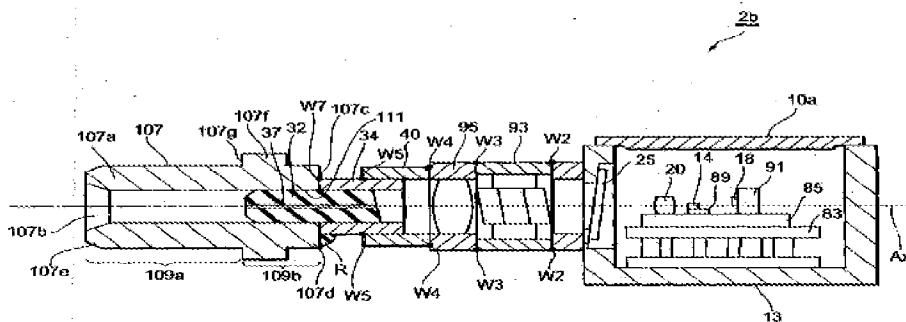
It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the teachings of **Kato et al.** in **Ishida Chisako**, by having the width of the chamfer corner around the front end of the fiber stub is to be 0.1 mm or below, since the ceramic is suitable for processing and has an excellent dimensional as mentioned at paragraph [0009] of Kato et al. Further more, the motivation for doing so is “in order to connect the optical module in ease to an external connector...” ([0047]), since it has been held that absent a showing of criticality to the invention, where the general conditions of a claims are disclose in the prior art, discovering the optimum or workable ranges involves only routine skill in the art (*In re Aller*, 105 USPQ 233).

**Claims 9 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kato et al.** (US. Pub. 2004/0076384) in view of **Rucks et al.** (US. Pat. 6,186,671).

**Regarding claim 9, Kato et al.** disclose the claimed invention such as:

- a ceramic precision sleeve (i.e. 99 or 107) for holding a plug ferrule. As known in the art, the ceramic is an electrical insulation material.
- a metal holder 34 is provided at a rear end of the precision sleeve 107; and a protruding portion (i.e. 99d or 107f) is formed integrally at the outer rear end of the ceramic precision sleeve (i.e. 99 or 107) and separated/spaced from the metal holder 34, and electrically insulated from the metal holder 34, since it is made of ceramic-an electric insulation material as the precision sleeve (“abstract”, [0094], [0095], Fig. 11A or Fig. 13).

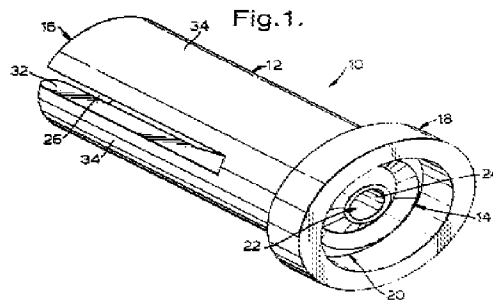


**Fig.11A****Fig.13**

Reproduce from US. Pub. 2004/0076384.

**Kato et al.** fail to teach a metal flange which is electrically insulated from the metal holder, is provided on an outer face of the precision sleeve separately from the metal holder.

**Rucks et al.** teach an optical fiber ferrule 10 comprising a precision sleeve 12 and a metal flange 18 (i.e. fixing element such as crimp ring or stamped metal part) ("Abstract", col. 1 lines 14-16, and Fig. 1).



Reproduced from US. Pat. 6,186,671

It would have obvious to one having ordinary skill in the art at the time the invention was made to use the teaching of **Rucks et al.** to modify **Kato et al.** by providing a metal flange to the outer surface rear end of **Kato et al.** ceramic precision sleeve. The motivation to doing so is to provide an extra support portion (i.e. gripping/clamping force) to the precision sleeve that secures a fiber stub to the precision sleeve (Rucks et al., col. 1 lines 15-16).

**Regarding claim 13**, in according to the discussion in the rejection of claim 9, **Kato et al.** further disclose a ceramic ferrule 32 of the same material as the precision sleeve 107, and an optical fiber 37 is inserted in the hole 36 of the ferrule 32 (Kato et al., [0047] and [Fig. 13]). In additional, the ceramic ferrule 32 is inserted into the ceramic precision sleeve 107 (Kato et al., [0089]).

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Lam whose telephone number is 571-272-9790. The examiner can normally be reached on M - F 07:30 AM - 05:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hung Lam/

/Charlie Y. Peng/  
Primary Examiner, Art Unit 2883

CYP/hql  
03/31/2008